



Laryngeal carcinoma – patient profile and delay in referral

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To the Editor: Laryngeal carcinoma is one of the 10 most common tumours occurring in South African men.¹ Our objective was to compile a profile of patients presenting with laryngeal carcinoma at Universitas Hospital in Bloemfontein, and to determine the time interval between the onset of symptoms and presentation. Patients with laryngeal carcinoma presented at a late stage. Hoarseness was the most common presenting symptom, but patients and medical personnel alike did not realise the significance of this symptom. A laryngeal cancer awareness campaign needs to be initiated to increase patient and health care workers' awareness of the disease.

Patients and methods

Fifty consecutive patients with newly diagnosed laryngeal carcinoma, seen at the ENT clinic at Universitas Hospital between January 2005 and December 2006, were interviewed by one of the authors after obtaining written consent. Approval to conduct the study was obtained from the Ethics Committee of the Faculty of Health Sciences, University of the Free State.

The following delays in referral were calculated:

- patient delay – the interval between the patient noticing symptoms and presenting to a general practitioner (GP) or clinic
- professional delay – the interval between the first presentation to a GP or clinic and consultation at the ENT clinic
- total delay – the sum of the patient and professional delays.

Patients referred to the ENT clinic with symptoms of laryngeal carcinoma were seen within 1 week, so this delay was not included in the calculations.

The tumour site was recorded as the area where we felt that the tumour originated. The TNM classification system was used for tumour staging.²

Exclusion criteria were: previous laryngeal carcinoma, treatment started prior to referral, primary tumour site outside the larynx, histology other than squamous carcinoma and patient refusal to participate in the study.

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Results

The ages of the patients ranged between 41 and 87 years with a mean age of 61.9 (SD 9.6 years). Forty-four (88%) patients were male, while 6 (12%) were female. Black patients comprised 80%, white patients 8% and coloured patients 12% of the cohort. The median ages were: black patients 61.4 years, white patients 68.5 years and coloured patients 60.0 years. Forty-eight (96%) patients were current or previous smokers while two had never smoked. Most patients (90%) had smoked cigarettes, while 6 (12%) had smoked a pipe. Snuff was used by 4 (8%) patients. Forty-five patients (90%) were alcohol consumers.

The presenting symptoms are outlined in Table I. Hoarseness (98%) was the most common symptom, followed by airway obstruction (64%) and odynophagia (62%). Hoarseness was present for a median of 5 months before referral.

The median patient delay was 1.5 months, the median professional delay 5 months and the median total delay 7 months.

The glottis (36%) and supraglottis (34%) were the most common sites of tumour origin, while 1 (2%) patient had a subglottic tumour. In 14 (28%) patients, the site of tumour origin could not be determined.

Most tumours were staged as T3 or T4 (Table II). However, the neck was staged as N0 in 64% of patients. Distant metastases were found in 4 patients. Eighty per cent of patients had late stage (stage 3 or 4) tumours, while only 20% had early stage laryngeal carcinoma (stage 1 or 2).

Discussion

Few studies have been performed in Africa to compile a profile of patients presenting with laryngeal carcinoma.

The mean age of 61.9 years in our study group is similar to results found in European countries.^{3,4} The average age of patients diagnosed with laryngeal cancer in Nigeria was 47 years.⁵ Twelve per cent of patients were female, all of whom had previously smoked. In European studies, females constituted 7 - 23.5% of patients. In African studies, the percentage of female patients with laryngeal cancer was 4% in Zimbabwe and 11% in Nigeria.³⁻⁷

Hoarseness is the most common presenting symptom of laryngeal cancer.^{3,5-7} Brouha *et al.* reported that 96% of their patients with glottic tumours and 44% of patients with supraglottic tumours presented with hoarseness.⁶

A distressing factor in our study was the number of patients who presented with airway obstruction. These patients took



Table I. Clinical symptoms

Symptom	Present at interview	Initial symptom complex	Initial symptom alone	Median duration of symptoms until seen at ENT clinic (months)
Hoarseness	49 (98%)	35 (70%)	19 (38%)	5
Cough	27 (54%)	14 (28%)	4 (8%)	4
Dysphagia	29 (58%)	4 (8%)		2
Odynophagia	31 (62%)	12 (24%)	1 (2%)	3
Airway obstruction	32 (64%)	6 (12%)	1 (2%)	1
Haemoptysis	6 (12%)	1 (2%)		2
Neck mass	13 (26%)	8 (16%)	3 (6%)	4
Pain over larynx	3 (6%)	3 (6%)	0 (0%)	5
Otalgia	2 (4%)	0 (0%)	0 (0%)	5

Table II. Tumour staging

TNM	Patients (N=50) (%)
T1	4 (8%)
T2	7 (14%)
T3	25 (50%)
T4	14 (28%)
N0	32 (64%)
N1	7 (14%)
N2	2 (4%)
N3	9 (18%)
M0	46 (92%)
M1	4 (8%)

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a median of 1 month to be referred. In Zimbabwe, 20% of patients were initially treated for severe asthma.⁷

Most tumours in our series were late stage. Tumushime-Buturo *et al.* noted that most of their tumours were T3.⁷ Results in the Netherlands, where 92% of patients were diagnosed with early cancers, contrast dramatically with our study. This creates an enormous differential in prognosis, attributable to the easy access that patients in the Netherlands have to medical care.⁶

The patient delay of 1.5 months in our study compares very favourably with other studies, but the professional delay of a median of 5 months is high compared with European studies.^{3,4} Brouha *et al.* found that the delay in referral of glottic tumours was more than double that of supraglottic tumours and attributed this to the fact that most GPs felt confident to treat a simple symptom such as hoarseness, but were more wary when hoarseness was accompanied by other symptoms such as dysphagia and odynophagia.⁶

Various factors play a role in diagnostic delay. In our study, patient ignorance seemed to be less important than professional delay. Brouha found that only 10% of patients with laryngeal cancer attributed their symptoms to smoking, while only 3.4% thought that cancer might be causing their symptoms.⁶ The latter study was conducted in the Netherlands; one would expect patient awareness of cancer to be even less in Third-World countries.

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